

In re ELLIOT, et al.  
09/614,586  
Reply to Office Action of Apr. 28, 2004

**Remarks/Arguments**

The Examiner is thanked for the Final Office Action dated April 28, 2004. This amendment and request for reconsideration is intended to be fully responsive thereto.

The drawings were objected to because Figs. 1a-1d fail to show “a heat dissipating fin adjacent said second circulation element”. Claim 31 has been amended to specify that the heat dissipating fin is adjacent the first circulation element. Fig. 1a clearly shows the heat dissipating fin labeled with the reference numeral 4. The present application shows and discloses that the heat dissipating fin 4 is disposed adjacent the first circulation element (3<sub>1</sub> and 3<sub>2</sub>) carrying the heat-carrying fluid.

The specification was objected to as failing to provide proper antecedent basis for the subject matter recited in claim 31, specifically the recitation of “a heat dissipating fin adjacent said second circulation element”.

As was noted above, claim 31 has been amended to specify that the heat dissipating fin is adjacent the first circulation element. The antecedent basis for the heat dissipating fin adjacent the first circulation element could be found on page 9, lines 3-10 of the specification that describes an element 4 for exchanging and interfacing with air formed from thin corrugated foil, or what is generally known in the art as the heat dissipating fin. The heat dissipating fin (element 4) is also clearly shown in Fig. 1a as adjacent to the first circulation element (3<sub>1</sub> and 3<sub>2</sub>).

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Claim 31 was rejected under 35 U.S.C. 112, first paragraph, as failing to provide any support for “a heat dissipating fin adjacent said second circulation element” as recited in claim 31. As was argued in the preceding paragraph, claim 31 has been amended to specify that the heat dissipating fin is adjacent the first circulation element and the antecedent basis for the “heat dissipating fin adjacent the first circulation element” could be found on page 9, lines 3-10 of the specification and Fig. 1a of the drawings.

Claims 1, 2, 7-10, 17-23, 30 and 31 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the Examiner noted that the claims are generally narrative and indefinite. Applicant respectfully disagrees. However, in order to expedite the prosecution of the present application, claims 1, 2, 7-10, 17-21, 30 and 31 have been amended to better conform with current U.S. practice and to address the Examiner’s comments and objections. No new matter has been added.

The Examiner further noted that the language of claim 17 is unclear. Particularly, the Examiner mentions that it is unclear which liquid does the apparatus convert into liquid. Claim 17 has been amended to clarify that the liquid is the refrigerant fluid, as would be readily understood by those skilled in the art because only the refrigerant fluid, not the heat-carrying fluid, flows through the additional evaporator which, by definition, operates to convert the refrigerant fluid into vapor. No new matter has been added. The elements recited as part of the

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limitations in each of claims 17 and 18 are intended to be positively recited.

With regard to claim 20, the Examiner noted that the recitation “at least one of cooling water and overcooled water” did not guarantee proper antecedent basis for both of these limitations as recited in claim 21. Claim 20 has been amended to overcome this rejection. No new matter has been added.

With regard to claim 30, the Examiner noted that the particular structure encompassing the first and second circulating elements is unclear. Claims 1 and 30 have been amended to overcome this rejection. No new matter has been added.

The Examiner also noted that the structural relationship between the refrigerating compressor, the condenser, the pressure-reducing valve, the evaporator and the main fluid-carrying heat exchanger as recited in claim 1 is omitted. Applicant respectfully disagrees.

MPEP 2172.01 states that claim should interrelate necessary structural cooperative relationships of elements described by the applicant as necessary to practice the invention. Claim 1 recites the heating/air-conditioning installation for a motor vehicle including the refrigerating compressor, the condenser, the pressure-reducing valve, the evaporator and the heating element as recited in claim 1. The heating/air-conditioning installation for motor vehicles including the above recited elements interconnected so as to form the thermal loop are well known in the art. Overwhelming majority of the vehicular heating/air-conditioning installations include the same structural elements, i.e. the refrigerating compressor, the condenser, the pressure-reducing valve,

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the evaporator and the heating element. Therefore, one of ordinary skill in the art will readily understand the structural and functional relationship between those elements of the heating/air-conditioning installation and will be able to practice the invention.

Thus, claims 1, 2, 7-10, 17-23, 30 and 31 are now believed to be in conformance with 35 U.S.C. 112.

The specification has been amended to correct some inconsistencies therein. More specifically, the paragraph beginning at page 8, line 28 of the substitute specification, has been corrected to recite that an element referenced 2 is a refrigerant-fluid circulation element, while elements referenced 3<sub>1</sub> and 3<sub>2</sub> are water-circulation elements. The support for this amendment could be found on page 9, lines 13-14 and page 10, lines 1-3 and 10 of the substitute specification, and Fig. 1a of the drawings. As clearly illustrated in Fig. 1a, the fluid flow entering the element 2 is marked as “fluide frigorigène”, which is a French word for “refrigerant fluid”, while the fluid flow entering the elements 3<sub>1</sub> and 3<sub>2</sub> is marked as “eau”, which is a French word for “water”.

Claims 1, 2, 7-10 and 18-20, 30 and 31 were rejected under 35 USC 102 (b) as being anticipated by Wolf (USP 5,080,167). Applicant respectfully disagrees. However, in order to expedite the prosecution of the present application, claim 1 has been amended to better define the present invention over Wolf. No new matter has been added.

Regarding claim 1: Wolf fails to disclose the main fluid-carrying heat exchanger

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including wherein the first circulation element carrying the heat-carrying fluid circumscribes the second circulation element carrying the refrigerant fluid while being in contact with each other. As clearly illustrated in Figs. 4-6 of the '167 patent, the combination apparatus (main fluid-carrying heat exchanger) 10 of Wolf includes unitary flow tubes 80 having an integrally formed divider web 82 therein for separating the flow tubes 80 into a refrigerant vapor passage 84 and an engine coolant passage 85. In other words, the engine coolant passage 85 does not circumscribe the refrigerant vapor passage 84.

Anticipation under Section 102 requires that a prior art reference disclose every claim element of the claimed invention. *E.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1574, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986). Anticipation must be found in a single reference. *E.g., Studiengesellschaft Kohle, m.b.H. v. Dart Indus., Inc.*, 726 F.2d 724, 726-27, 220 U.S.P.Q. 841 (Fed. Cir. 1984). The absence of any element of the claim from the cited reference negates anticipation. *E.g., Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 U.S.P.Q. 1264 (Fed. Cir. 1984).

Further regarding claim 8: Wolf fails to disclose the main fluid-carrying heat exchanger including a single first collector of the heat-carrying fluid and a single second collector of the refrigerant fluid arranged at opposite ends of the main fluid-carrying heat exchanger. By contrast, the combination radiator and condenser apparatus (main fluid-carrying heat exchanger) 10 includes a radiator inlet tank 20 having both a coolant chamber or space 62 and a sealed


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refrigerant vapor space 66, and an opposite radiator outlet tank 26 also having both a coolant space 62' and a sealed refrigerant vapor space 66' (see Fig. 3 of '167 patent).

Therefore, Applicant respectfully submits that the applied document, *i.e.*, the '167 patent to Wolf, does not meet this standard of anticipation. Accordingly, Applicant respectfully traverses this rejection.

It is respectfully submitted that claims 1, 2, 7-10, 17-23, 30 and 31 are in condition for allowance, and notice to that effect is earnestly solicited. Should the Examiner believe further discussion regarding the above claim language would expedite prosecution they are invited to contact the undersigned at the number listed below.

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